Civilian Injury Data Mining

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USACHPPM
NEHC
3/25/2004

Topics

- Sources of Data
- Metrics
- Outlier Identification
- Interventions

Civilian Injury Data Sources

- Workers' compensation data
  - Office of Workers' Compensation Programs
  - DOD Civilian Personnel Management Service
- DOD Lost Workday Website
- No central databases of accidents other than those that include workers' compensation claims

DOD Lost Workday Website

- https://www.dmdc.osd.mil/ltwi/owa/cop
- Response to SecDef Rumsfeld tasker
- Managed by DMDC using timecard data from DFAS
- Presents lost work days related to acute injury claims and occupational illness claims, as well as rates
- Presents “Top 40” list and graphs

DOD Lost Workday Website

- Numerator data:
  - Days lost during COP period for acute injury claims
  - All days lost related to injury after COP period (“LWOP” days – whether OWCP payments have kicked in yet or not) until employee is RTW or separated
  - All days lost related to occupational illness claims
  - Total lost days (add above two)
- COP costs (data for this not validated yet; still in development)

DOD Lost Workday Website

- Denominator data:
  - Full-time employee equivalents estimated from hours worked
  - Calculation is on the definitions page
- Rates:
  - Lost work day rate in the last pay period
  - Lost work day rate for the last 26 pay periods (re-set every 2 weeks)

DOD Lost Workday Website

- Search paths:
  - Service
    - Installation
      - UICs
  - Service
    - Major Command
      - Installation
        - UICs
- Can search for all employees at installation or just those belonging to service of interest
- Recently made searchable to the activity/tenant level
- Recent addition of historical data
- Many organization errors as services reorganize

DOD Lost Workday Website

Screen shots and explanations…

U.S. Department of Defense

Personnel Safety Metrics

Civilian Workforce

- Civilian Lost Time
- Civilian Cost
- Top 40 Graphs & Tables

Military Workforce

- Army Medical Surveillance Activity

Defense Safety Links

- DUSD (I&E) Programs
- Injury and Unemployment Compensation (ICUC) Division
- United States Army Safety Program
- United States Navy Safety Center
- Air Force Safety Center
- U.S. Marine Corps Safety Division
- U.S. Department of Labor Lost Production Days

For questions regarding the data or definitions on this website, please e-mail losttime.assist@osd.penatgon.mil and provide your question, your e-mail address, name, organization, and phone number.

Top 40 Installations

Quarterly Top 40: Data as of 06 Sept 2003. (Excel Download)

Top 40 Installations Grouped

Top 40 Narrative

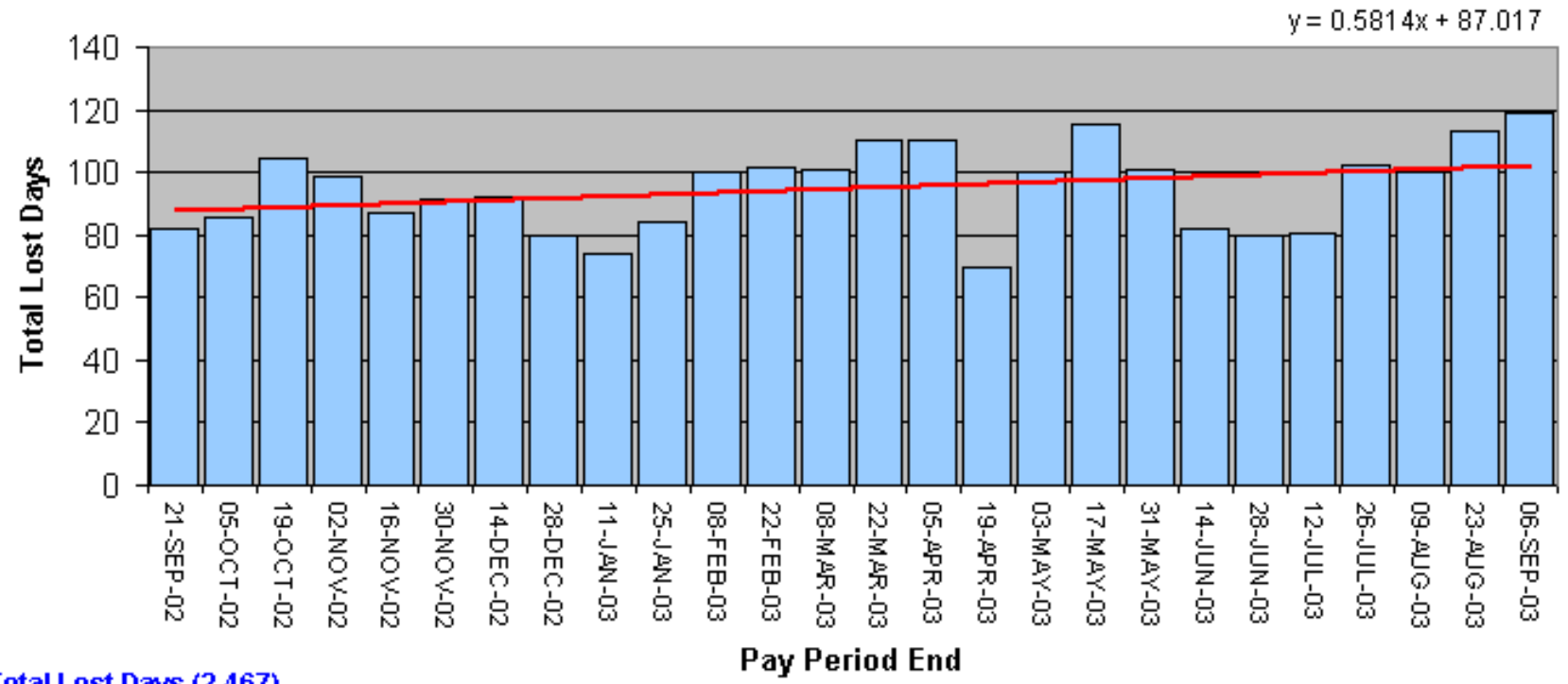
Top 40 Installations by the number of Total Lost Days for 26 pay periods ending 06 SEPT 2003. Ranked by the Total Lost Day Rate.

To view the historical data for each installation please click on the H

	Rank	Installation	Service	COP Days	LWOP Days	Total Lost Days	Incident Rate	Total Lost Day Rate
H	1	PINE BLUFF ARSENAL	Army	308	2,159	2,467	26.28	228.20
H	2	BARSTOW MCLB	Marine Corps	633	1,964	2,596	24.54	205.55
H	3	DEF DISTR REG WEST TRACY	DOD Agencies	567	2,273	2,840	25.81	168.55
H	4	ALTUS AFB	Air Force	479	1,710	2,189	21.33	157.73
H	5	FORT POLK	Army	434	2,318	2,752	17.02	149.19
H	6	PUGET SOUND NAV SHIPYD	Navy	1,437	12,556	13,993	14.63	123.96
H	7	NORFOLK NAV SHIPYD	Navy	2,725	6,738	9,463	14.27	113.63
H	8	CORPUS CHRISTI ARMY DEPOT	Army	502	2,691	3,193	12.16	105.25
H	9	ROBINS AFB	Air Force	1,009	12,707	13,717	11.53	104.62

Top 40 Installations

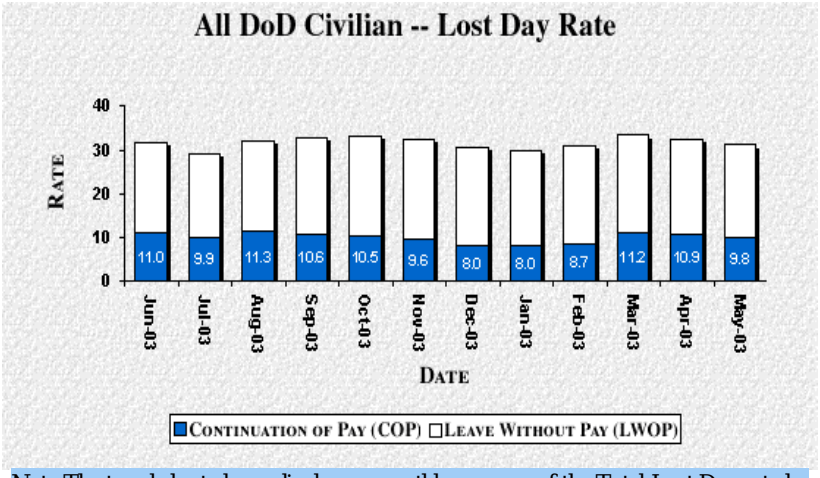
PINE BLUFF ARSENAL



Total Lost Days (2,467)

Defense Manpower Data Center
400 Gigling Road
Seaside, CA 93955

Personnel Safety Metrics



Note: The trend chart above displays a monthly average of the Total Lost Day rate by grouping pay periods paid in that month.

To view the historical data for the DoD Total click on the H button next to the title.

	Current Pay Period (17 MAY 2003)						Last 26 Pay Periods			
	Total	Prorated Hours	Incident Rate	COP Days Lost	LWOP Days Lost	Total Lost Day Rate	Incident Rate	COP Days Lost	LWOP Days Lost	Total Lost Day Rate
H	DoD Total	53,388,538	4.38	2,605	5,618	30.81	4.56	69,413	149,792	31.60

Army | Navy | Marine Corps | Air Force | Defense Agencies

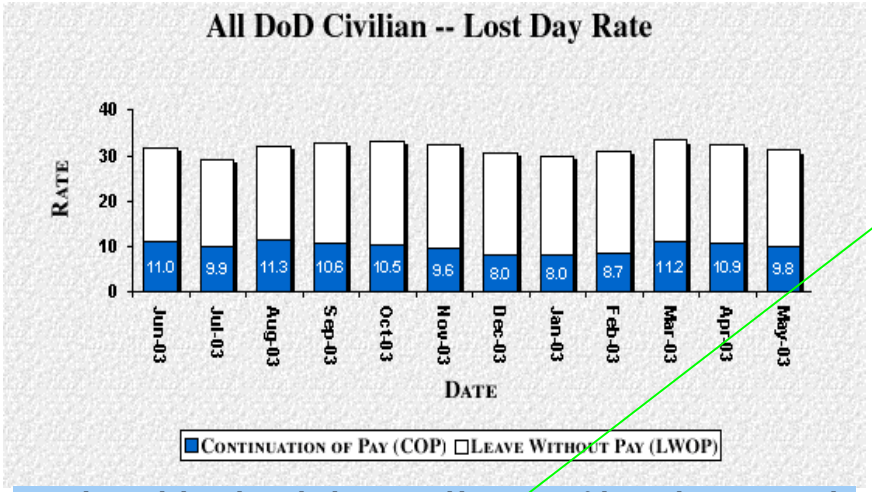
Source: Civilian payroll records

Link For Definitions

This page shows the aggregate data for all of DoD in graph and table format.

Links to the individual Services are on the bottom of the page.

Personnel Safety Metrics



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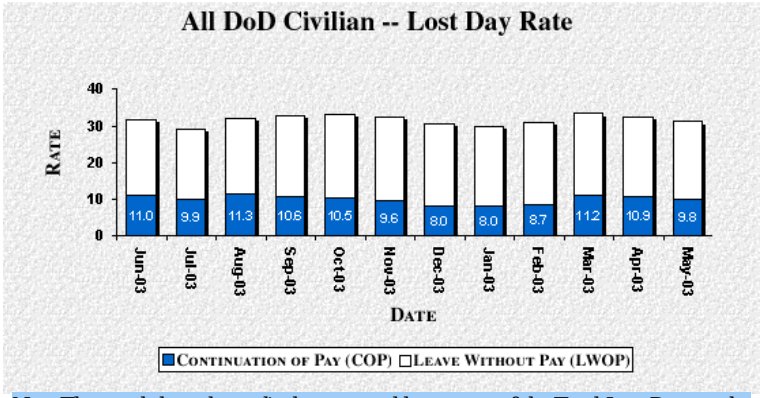
Link For Definitions

Data are presented for the most recent pay period

and for the last 26 weeks (one year)

Personnel Safety Metrics



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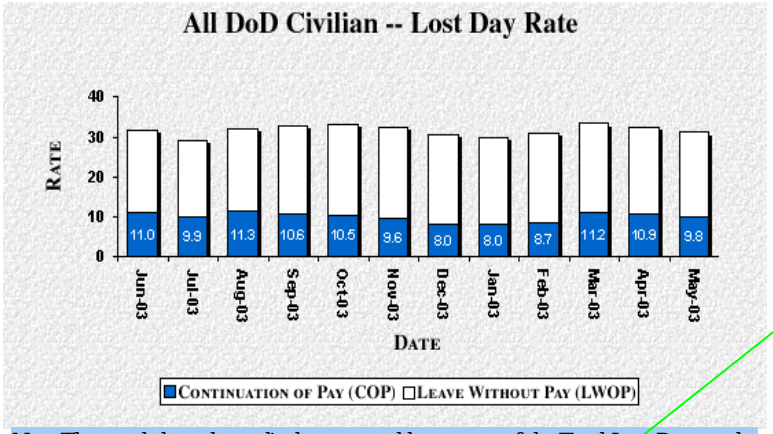
Link For Definitions

Data for the most recent pay period consist of:

- Prorated Hours
- Incident Rate
- COP Days Lost
- LWOP Days Lost
- Total Lost Day Rate

For the yearly (26 pay periods) table no prorated hours are given but calculations are

Personnel Safety Metrics



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Army | Navy | Marine Corps | Air Force | Defense Agencies

Source: Civilian payroll records

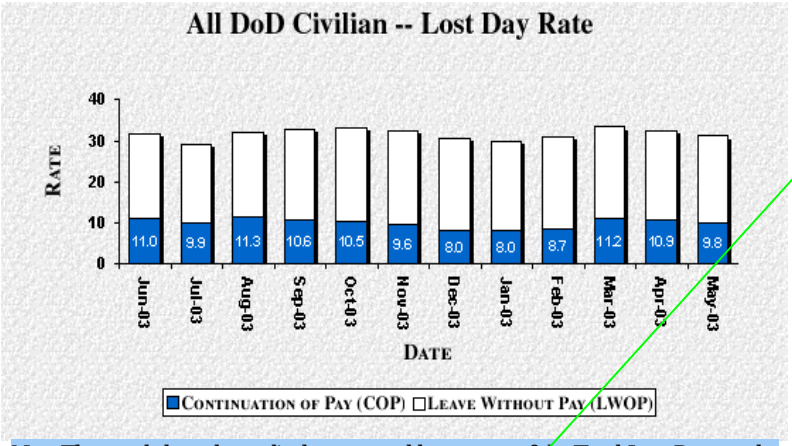
Link For Definitions

COP days lost

COP days lost gives the number of days lost due to employees being out sick with an occupational injury (up to 45 days).

The number indicates actual days during that pay period.

Personnel Safety Metrics



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Source: Civilian payroll records

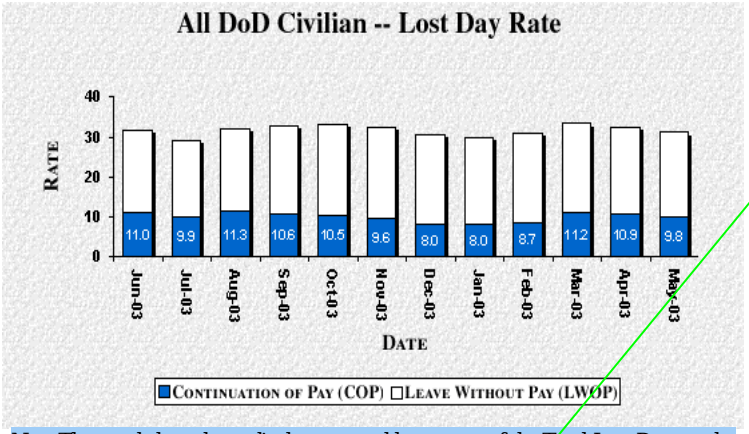
Link For Definitions

LWOP Days Lost

LWOP is days of leave without pay. This may be time in excess of an initial 45 day COP period or for occupational illness claims, for which COP is not authorized.

It includes days paid by the Dept. of Labor for employees still

Personnel Safety Metrics



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Source: Civilian payroll records

Link For Definitions

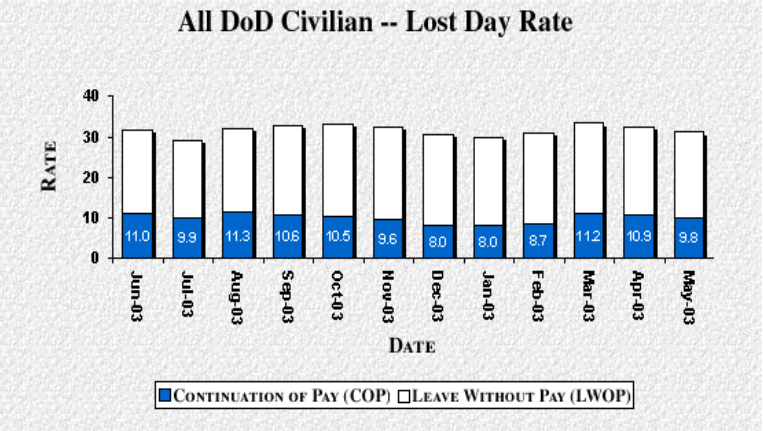
Total Lost Day Rate

This rate is the number of days lost due to an occupational injury or illness if the organization had 100 employees working one year.

100 employees = 200,000 hrs per year.

To calculate the rate, the number of COP and LWOP days are added. This sum is then divided by the number of hours

Personnel Safety Metrics



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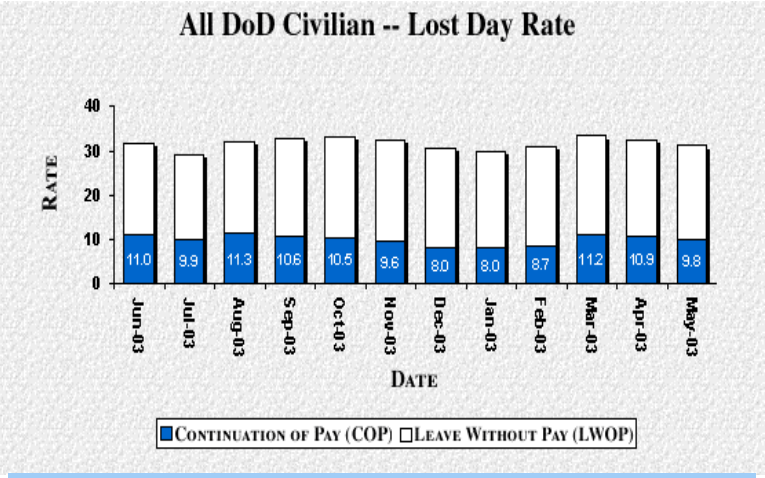
Link For Definitions

The same data are listed for the last 26 pay periods (one year).

Personnel Safety Metrics



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Source: Civilian payroll records

Link For Definitions

History

Some tables contain a link to historical information on the organization listed.

Click th H

Breakdown of **Army** Activies for **PINE BLUFF ARSENAL**

			Last Pay Period (18 OCT 2003)					Last 10 Pay Periods			
	UIC	UIC Name	Prorated Hours	Incident Rate	COP Lost Days	LWOP Lost Days	Total Lost Day Rate	Incident Rate	COP Lost Days	LWOP Lost Days	Total Lost Day Rate
H	W0K4AA	USA OSC PINE BLUFF ARS	70,808	31.07	16	90	300.11	29.64	95	885	287.67
H	W4ML05	SBCCOM PINE BLFF CHEM ACT	12,560	0	0	0	0	6.89	5	0	7.77
H	W2SU04	ENDIST LITTLE ROCK	3,840	0	0	0	0	0	0	0	0
H	W38N02	C COMPANY PBA	2,400	0	0	0	0	0	0	0	0
H	W2DF09	RMAC PINE BLUFF	1,254	0	0	0	0	0	0	0	0
H	W2NV02	USA HLTH CLN PINE BLUFF	1,040	0	0	0	0	0	0	0	0
H	W0FQAA	90TH REG SUP CMD	400	0	0	0	0	0	0	0	0
H	W07604	ENDIST LITTLE ROCK	240	0	0	0	0	0	0	0	0
H	W4ML11	RDE MODELING AND SIMULATI	80	0	0	0	0	0	0	0	0
H	WQNYA2	DET 2 CO A 39 SPT BN	80	0	0	0	0	0	0	0	0
H	W0U4AA	USAG FT CAMPBELL	0	0	0	0	0	0	0	0	0
		Grand Total	93,782	23.73	16	90	220.23	23.69	100	885	221.24

USA OSC PINE BLUFF ARS

Pay Period End	Prorated Hours	Incident Rate	COP Days Lost	LWOP Days Lost	COP Rate	LWOP Rate	Total Lost Day Rate
10-18-2003	70,808	31.07	16	90	45.90	254.21	300.11
10-04-2003	71,048	30.96	18	85	50.67	239.27	289.94
09-20-2003	68,248	32.24	8	90	24.00	263.74	287.74
09-06-2003	67,436	35.59	29	90	84.91	266.92	351.83
08-23-2003	67,516	32.58	23	90	69.26	266.60	335.86
08-09-2003	67,676	29.55	0	100	0	295.53	295.53
07-26-2003	67,836	29.48	0	100	0	294.83	294.83
07-12-2003	67,048	23.86	0	80	0	238.64	238.64
06-28-2003	67,048	23.86	0	80	0	238.64	238.64
06-14-2003	66,808	26.94	1	80	2.25	239.49	241.74

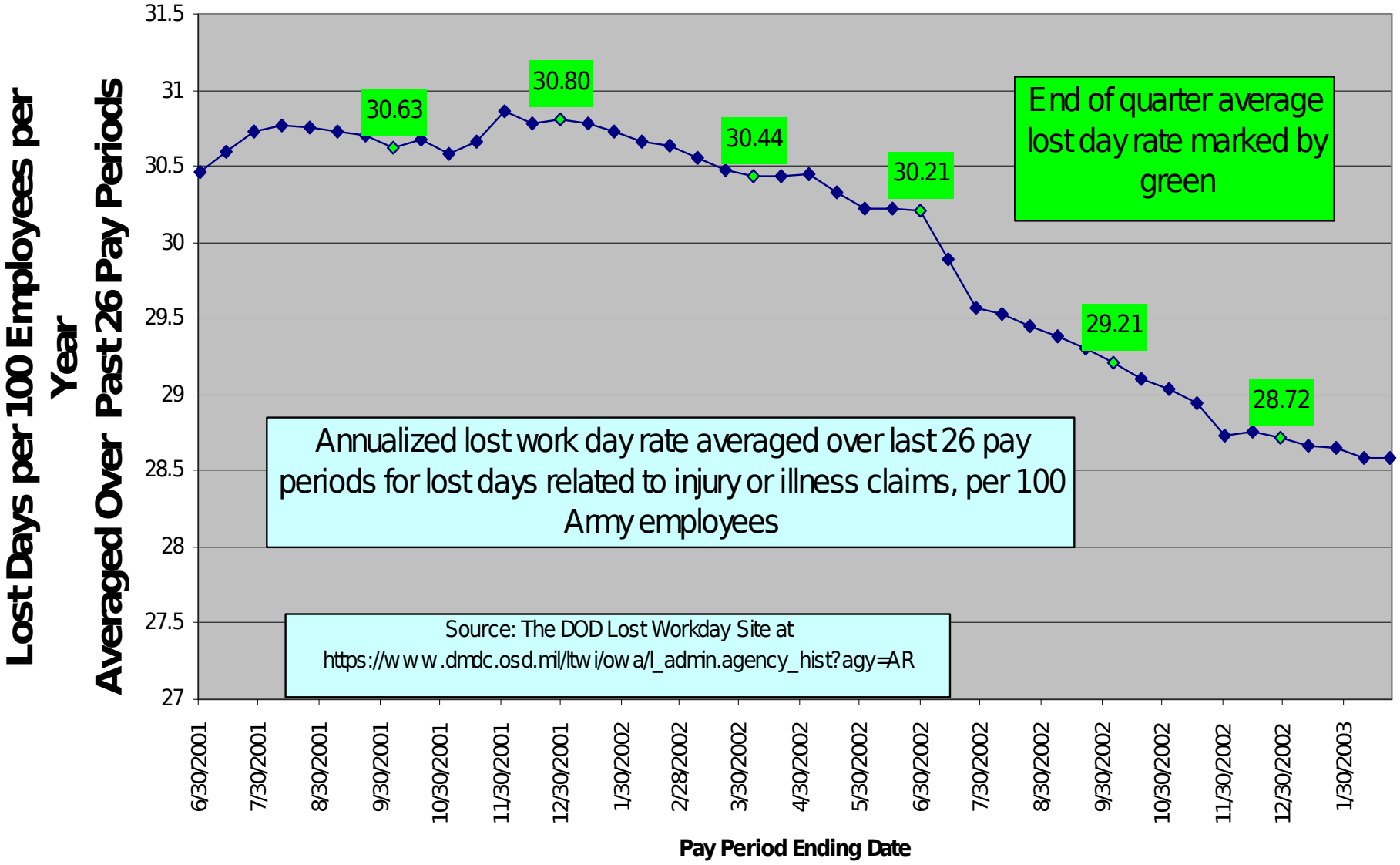
What Can Be Done With the Lost Workday Data?

- Count and trend number of days lost
  - Impact of population fluctuations and differences limit usefulness
- Trend rates
  - COP days lost per 100 employees
    - Measure of severity of injury
    - Measure of effective case management and RTW programs
  - Trend total days lost per 100 employees
    - Mainly a measure of effectiveness of case management and RTW programs

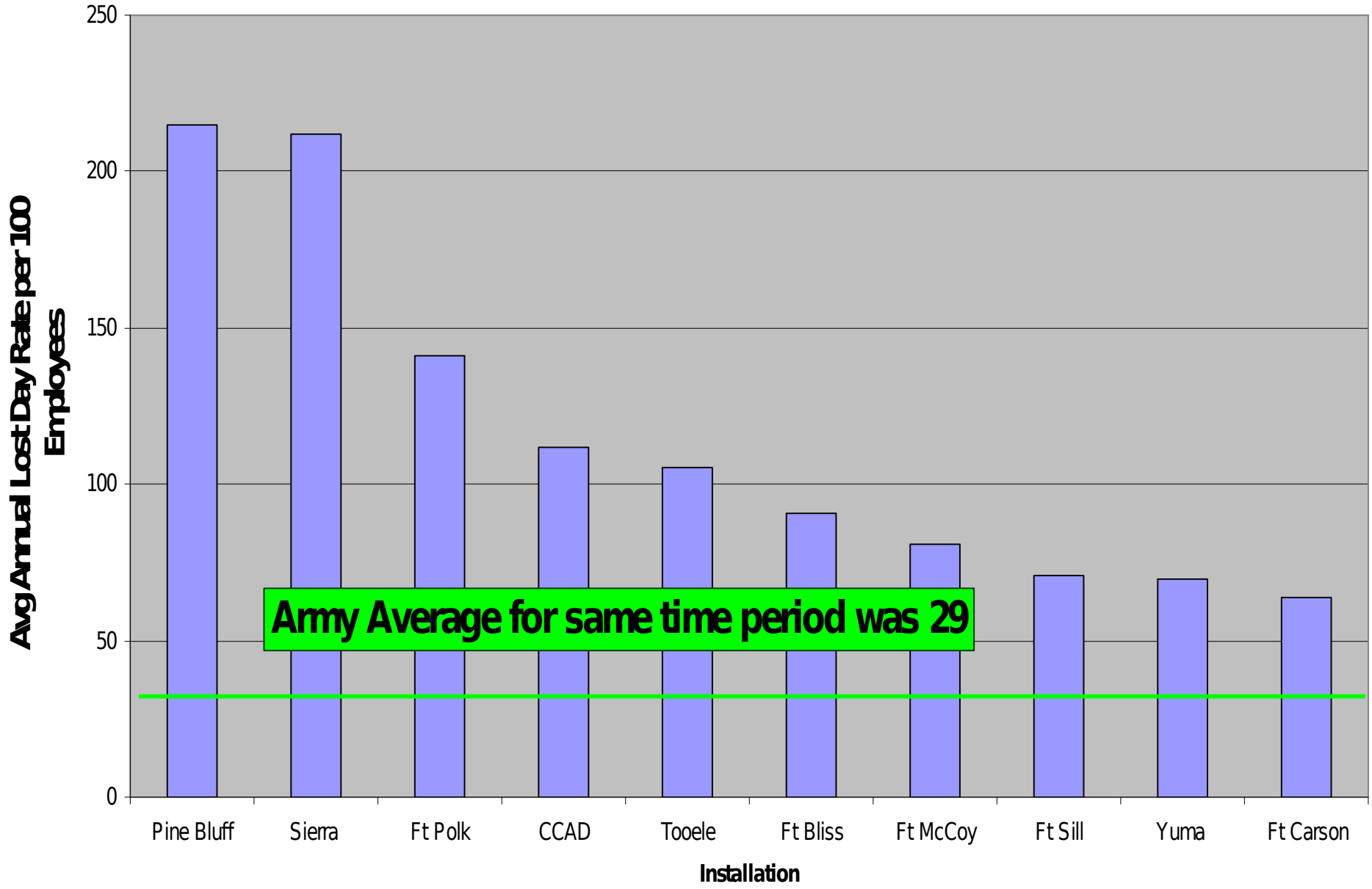
Metrics

- Average Annualized Lost Day Rate
  - From Lost Workday Website
  - Some data manipulation required
  - Can trend a part of the organization over time, or compare/rank organizations
- Average Annualized COP Day Rate
- Examples…

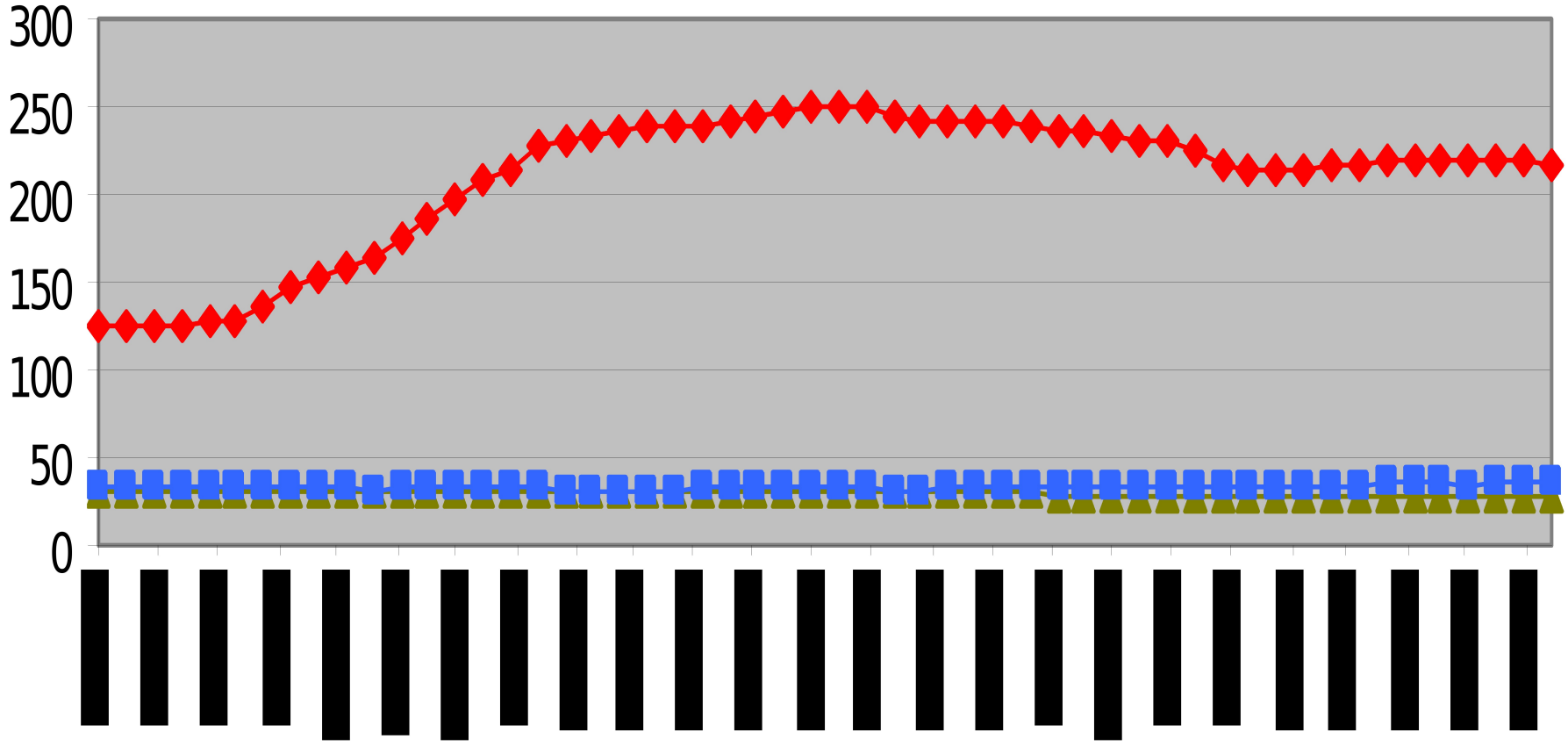
Army Average Annual Lost Day Rate



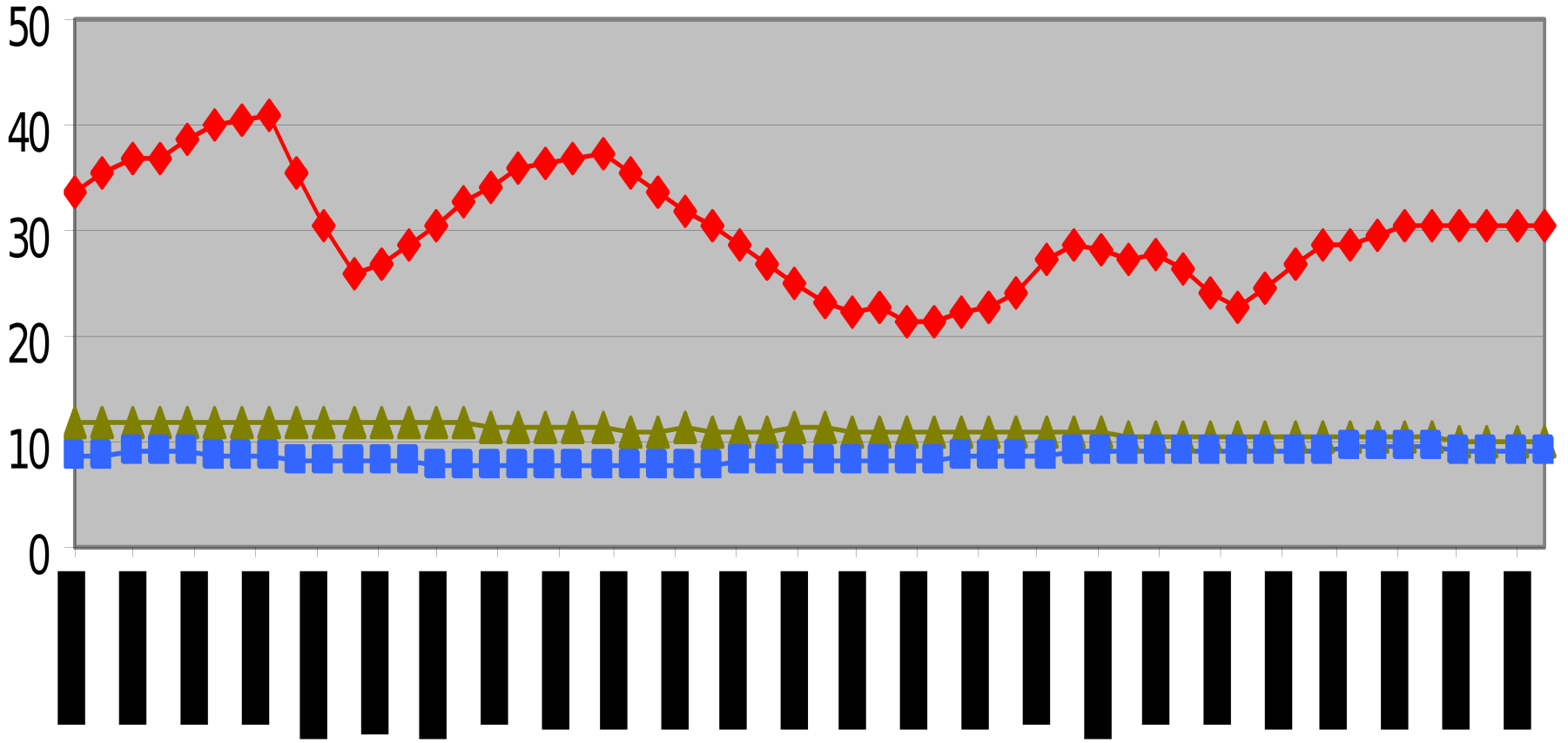
Army Installations with Highest Lost Day Rates (Mar 03)



Pine Bluff Arsenal Lost Day Rate



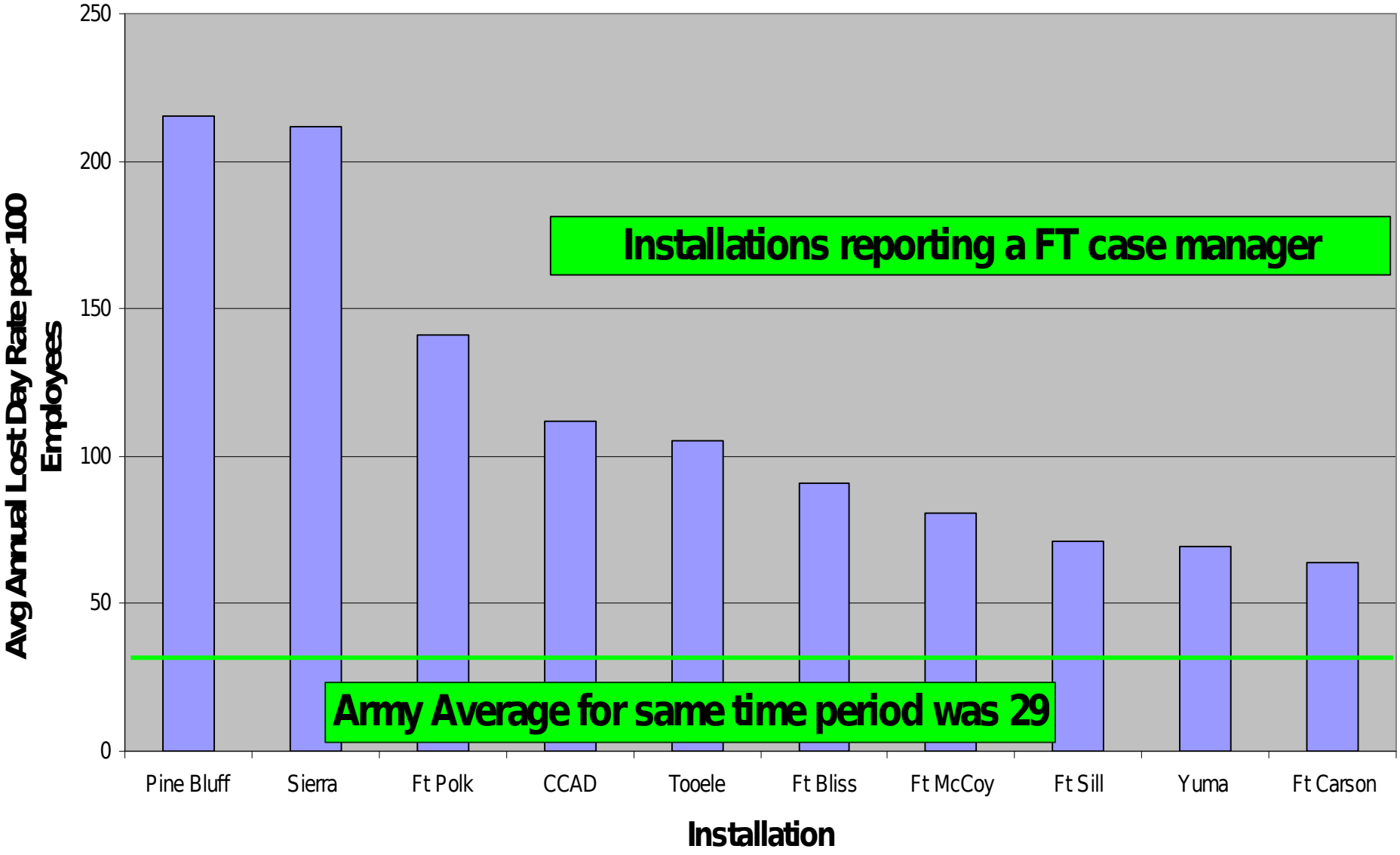
Pine Bluff Arsenal COP Rate



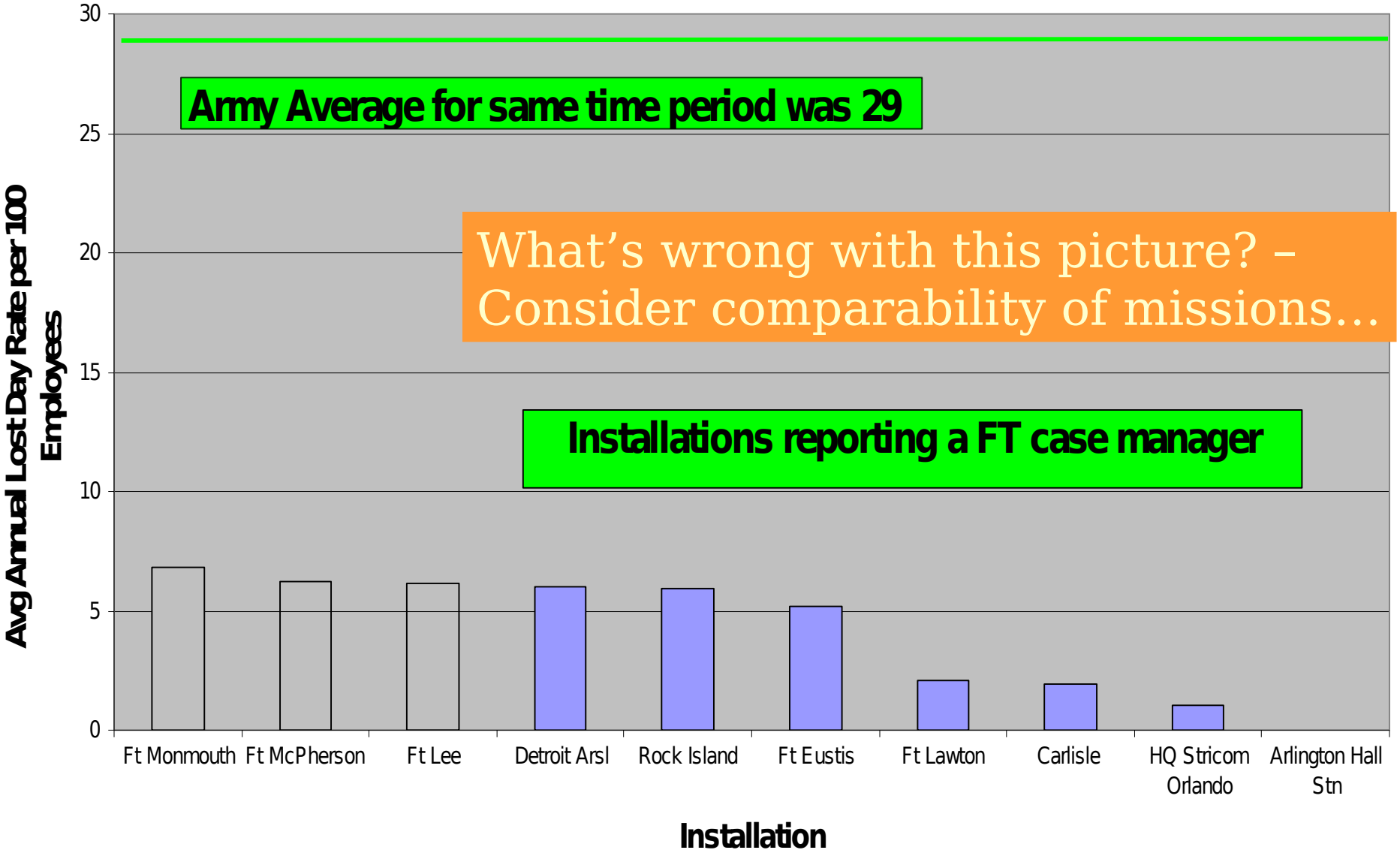
Outlier Identification

- Considerations
  - Comparable data?
  - Comparable installations?
  - Factors other than injury rates that can affect the data?
    - RIFs → increased claims, poor RTW options
    - Differences in approaches to time-keeping
    - Aggressiveness in RTW and case closure
  - Examples…

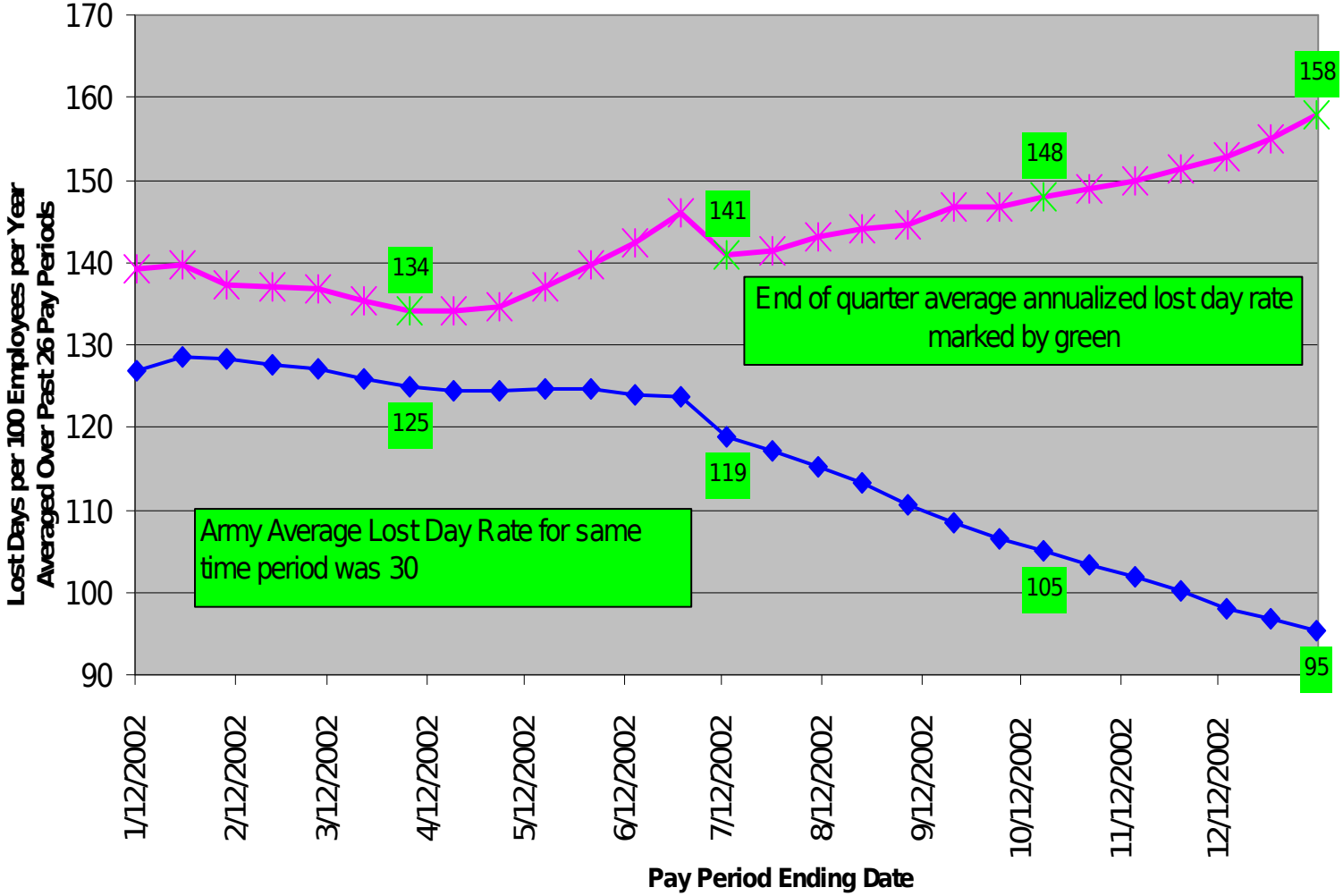
Army Installations with Highest Lost Day Rates (Mar 03)



Army Installations with Lowest Lost Day Rate

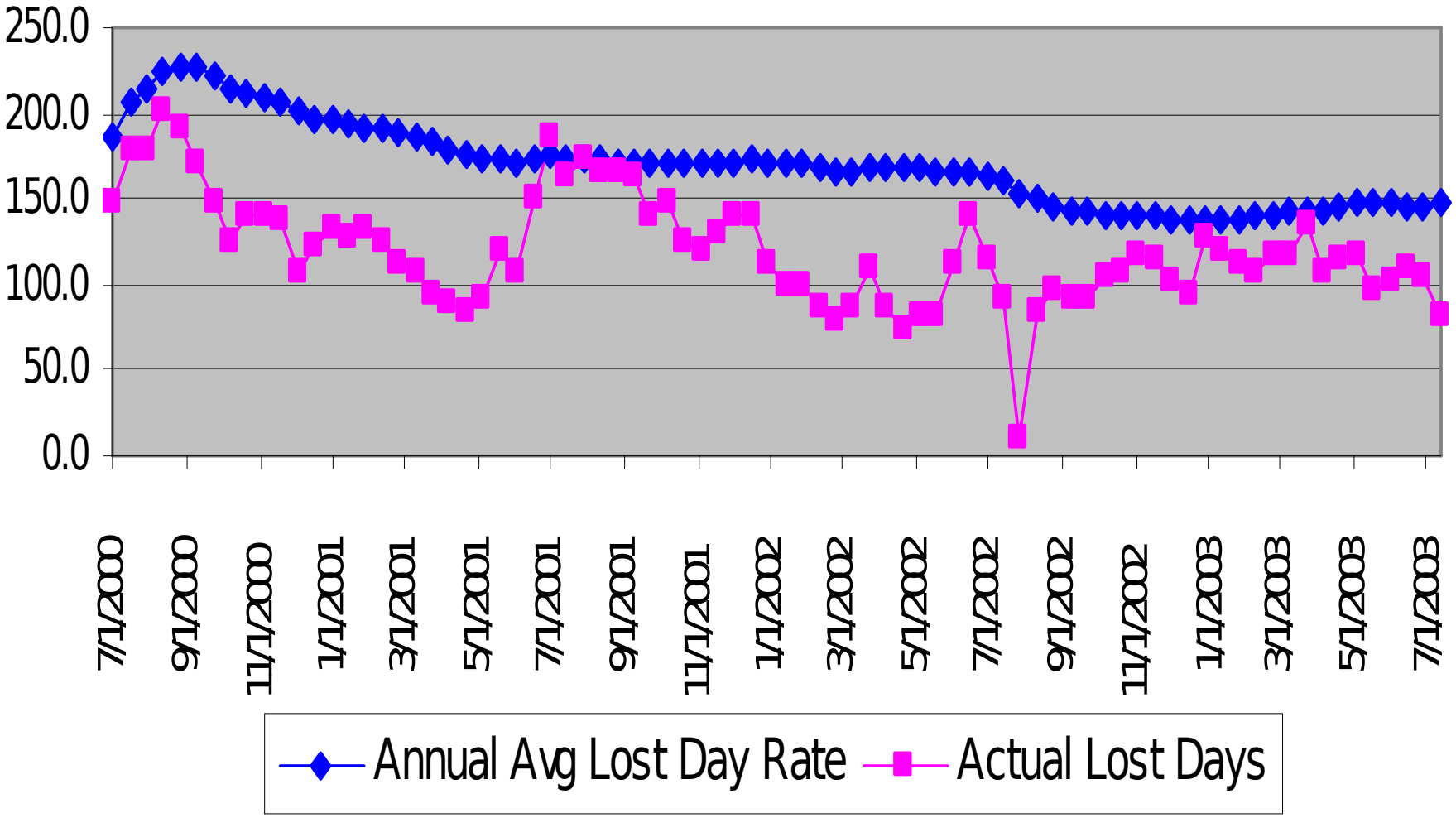


Fort Bliss - Whole Installation vs. MEDCOM
Average Annual Lost Day Rate



Source: The DOD Lost Workday Site at
https://www.dmdc.osd.mil/ltwi/owa/cop

Fort Polk Lost Days vs Avg Anualized Lost Day Rate



CPMS Workers' Comp Data

CPMS Workers' Comp Data

- Injury Compensation/ Unemployment Compensation database
  - DOD's Civilian Personnel Management Service
  - Requires password; limited views are available to OH/OM staff engaged in injury case management
  - Web-based

CPMS Workers' Comp Data - DIUCS

- Pros:
  - Presents compensation claim and cost data
  - Updated every two weeks
  - CPO (installation) level data available
  - New DefPAC (Defense Portal Analysis Center) make data easier to navigate
- Cons:
  - Inflexible (fixed report options)
  - Difficult to use
  - No denominator (population data) so no rates

CPMS Workers' Comp Data

- New DefPAC website
  - Two levels of password protection
    - ICPA will be able to go to individual claim level
    - SOH staff can search statistical reports
  - Can get stat reports for any services
  - Claims and costs
  - Infinite sort functions – very flexible

DefPAC

- https://icucweb.cpms.osd.mil/cognos
- OCCHEALTH as your user ID
- occhealth as the password
- This site contains a web portal with
  - Updates from CPMS
  - Easy access to regulations and policies
  - Statistical reports on claims and costs
  - On-line tutorial for getting started,
- Your DOD liaisons can provide additional local training for your injury and compensation management staff.

Injury Statistics by Year of Injury (Since 1960) - Cognos PowerPlay Web Explorer - Microsoft Internet Explorer provided by USAL

File Edit View Favorites Tools Help

Back Search Favorites Media

Address https://icucweb.cpms.osd.mil/cognos/cgi-bin/ppdscgi.exe?DC=Q&nia=Run&nid=009bc7e65faf11d7bcecc7d93d801653&nic=%2FStatistical%20Data%20Reports%2FI Go Links

Cognos PowerPlay Web Explorer

Injury Statistics by Year of Injury (Since 1960)

COGNOS

All Components | All by Year of Injury | All by DOL Case Create Year | All ICPA Offices | All OWCP Paying District Offices | All Claim Forms

All Occupations | All Adjudication Status' | All Case Pay Status' | All Injury Causes | All Extents of Injury | All Fatal Indicators | All Natures of Injury

All Anatomical Locations | All Controversion Indicators | All Third Party Indicators | All Rehabilitation Indicators

Claim Count as values	Pre-1960's	1960's	1970's	1980's	1990's	2000's	Post-Current	All by Year of Injury
4TH ESTATE	0	279	1,066	3,987	50,094	13,477	0	**68,903**
AIR FORCE	0	1,254	3,967	8,253	66,051	21,443	0	**100,968**
ARMY	0	1,374	4,604	15,438	112,890	34,339	0	**168,645**
NAVY	0	2,203	12,405	29,105	133,211	28,731	0	**205,655**
INVALID CODE	0	3	2	10	991	411	3	**1,420**
All Components	**0**	**5,113**	**22,044**	**56,793**	**363,237**	**98,404**	**3**	**545,594**

50 20

3D Bar

Changes to 3D bar display. Internet

File Edit View Favorites Tools Help
Back Search Favorites Media
Address https://icucweb.cpms.osd.mil/cognos/cgi-bin/ppdscgi.exe?DC=Q&nia=Run&nid=8e4d6510606111d7bdd49f954aa24a9c&nic=%2FStatistical%20Data%20Reports%2F Go Links

Cognos PowerPlay Web Explorer

Chargeback

COGNOS

ARMY | All Chargeback Years | All ICPA Offices | All Medical Net Payment Types | All Compensation Net Payment Types | All Total Net Payment Types

Total Costs as values	1994 - 1998	1999 - 2003	All Chargeback Years
AGENCIES	$9,362,649.00	$1,725,625.00	**$11,088,274.00**
ARMY RESERVES	$15,434,881.00	$18,432,208.00	**$33,867,089.00**
ARSENALS	$1,975.00	$.00	**$1,975.00**
CEMETARIES	$567,727.00	$315,117.00	**$882,844.00**
CENTERS	$1,077,680.00	$1,493,587.00	**$2,571,267.00**
CHIEF OF STAFF	$1,765,799.00	$2,966,135.00	**$4,731,934.00**
COMMANDS	$267,641,621.00	$272,515,727.00	**$540,157,348.00**
CORP OF ENGINEERS	$93,800,382.00	$96,292,664.00	**$190,093,046.00**
DEPOTS	$38,758.00	$.00	**$38,758.00**
EDUCATION	$5,595,471.00	$6,101,110.00	**$11,696,581.00**
MATERIEL COMMANDS	$283,883,906.00	$266,776,823.00	**$550,660,729.00**
MEDICAL	$56,946,961.00	$75,978,175.00	**$132,925,136.00**
NATIONAL GUARD	$78,893,703.00	$92,663,855.00	**$171,557,558.00**
OSA	$5,298,374.00	$6,276,238.00	**$11,574,612.00**
OTHER	$8,435,533.00	$14,823,595.00	**$23,259,128.00**
ARMY	**$828,745,420.00**	**$856,360,859.00**	**$1,685,106,279.00**

50 20
Internet

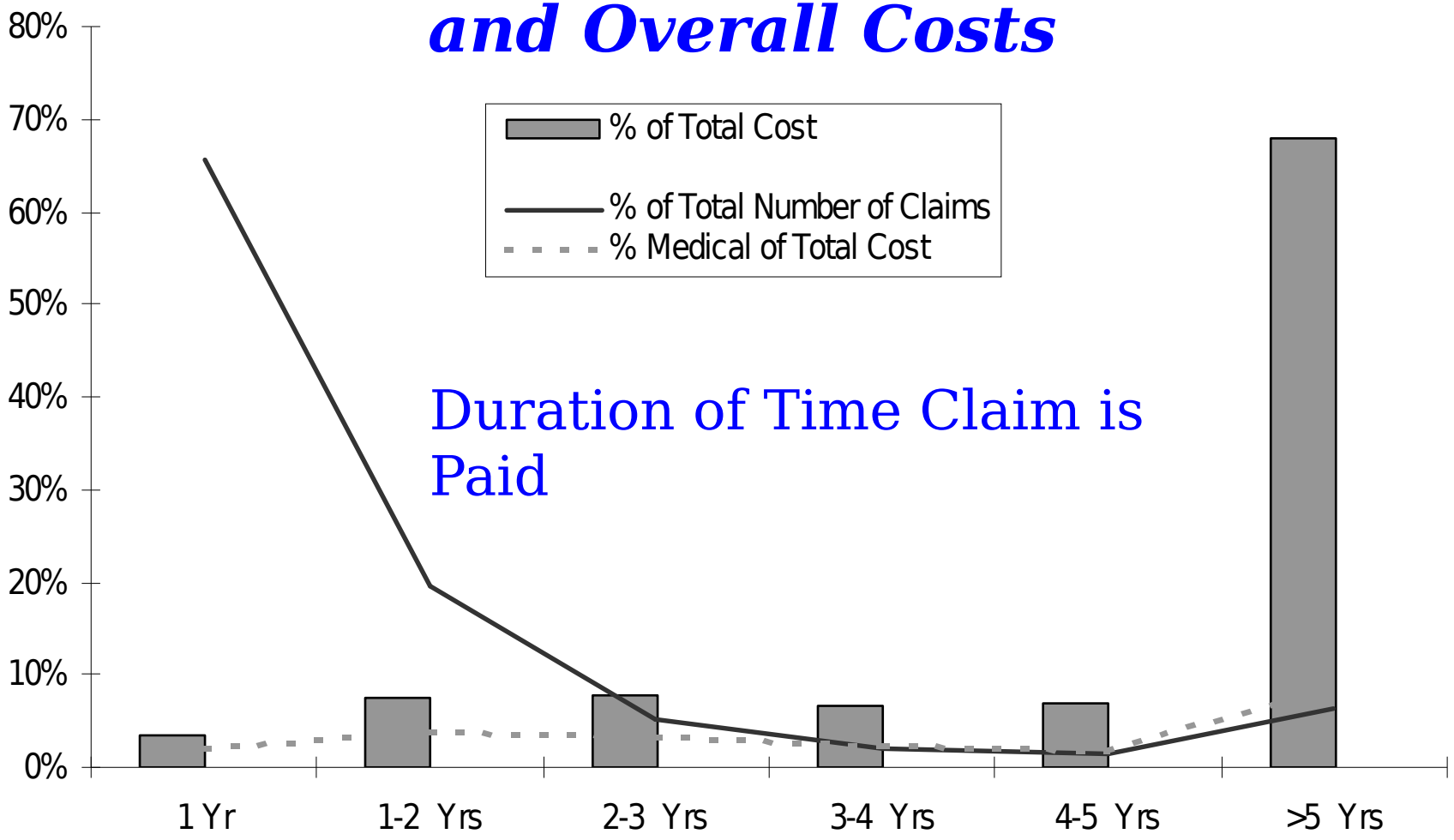
Metrics

- To get rates, you need the numerator data from DefPAC and the appropriate population data (from local personnel or DMDC)
  - Total claim rate
  - New claim rate
  - New lost time claim rate
  - Old claim rate (no standard definition – we used claims still receiving compensation (minus death claims) more than one year after filing
  - Chargeback costs per 100 employees

Old Claims and Costs

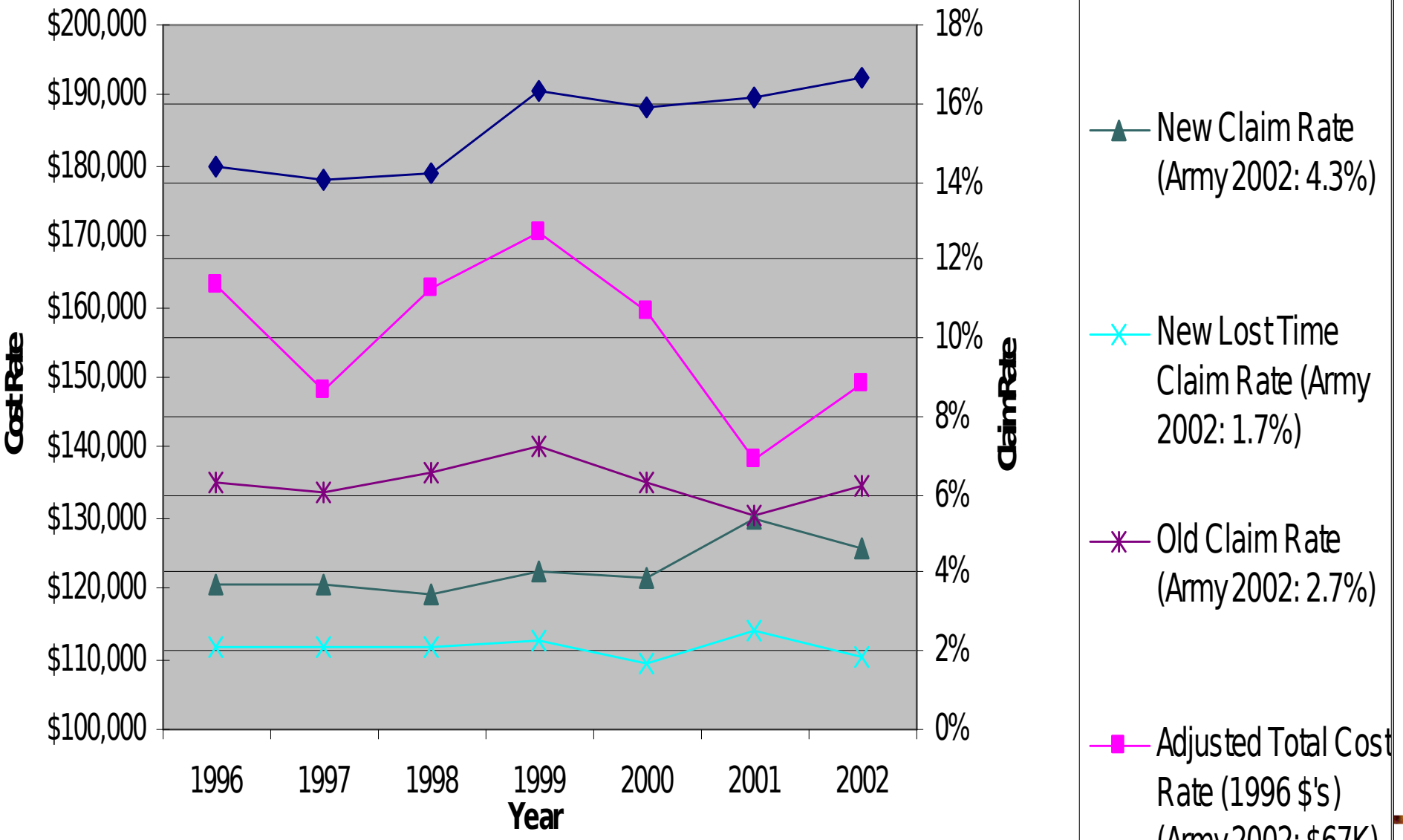
- Found strong correlation between increasing costs and stable old claim rates
- Found strong correlation between accelerated increase in costs and increasing old claim rates
- Conclusion – controlling old claims is necessary to control costs

DA OWCP Claims: Relationship between Duration of Claim and Overall Costs



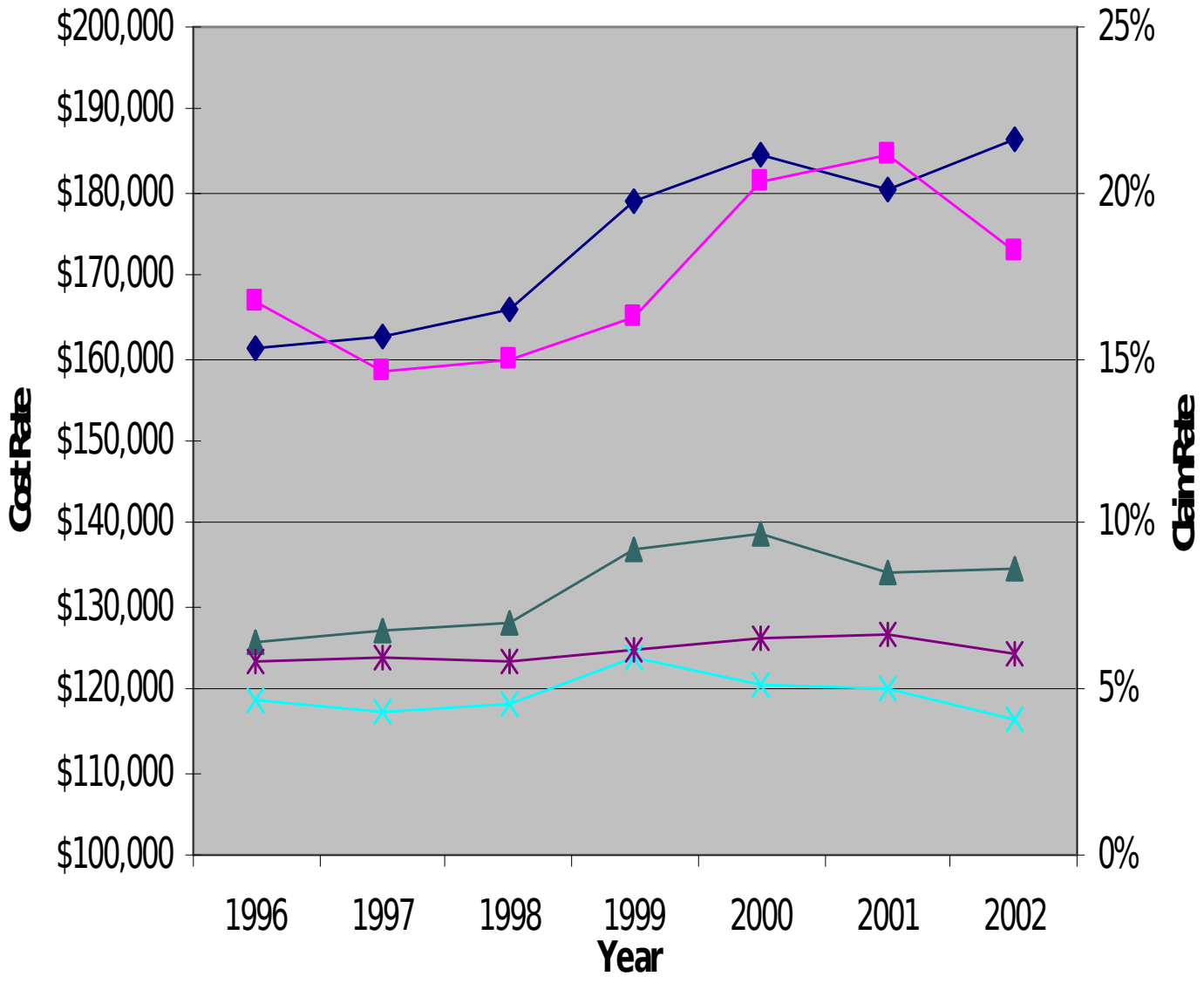
Fort Bliss

Rates and Costs



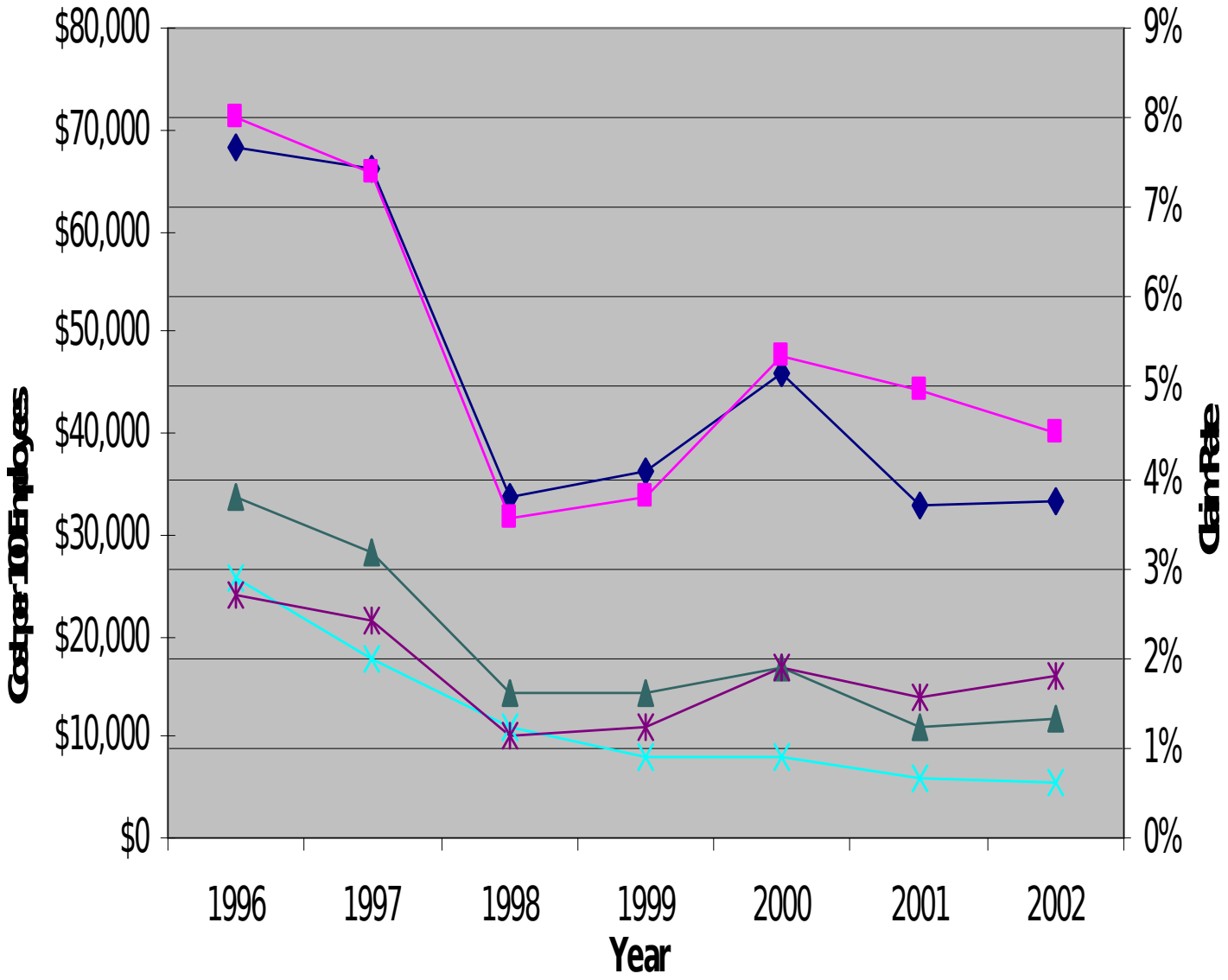
Fort Polk

Rates and Costs

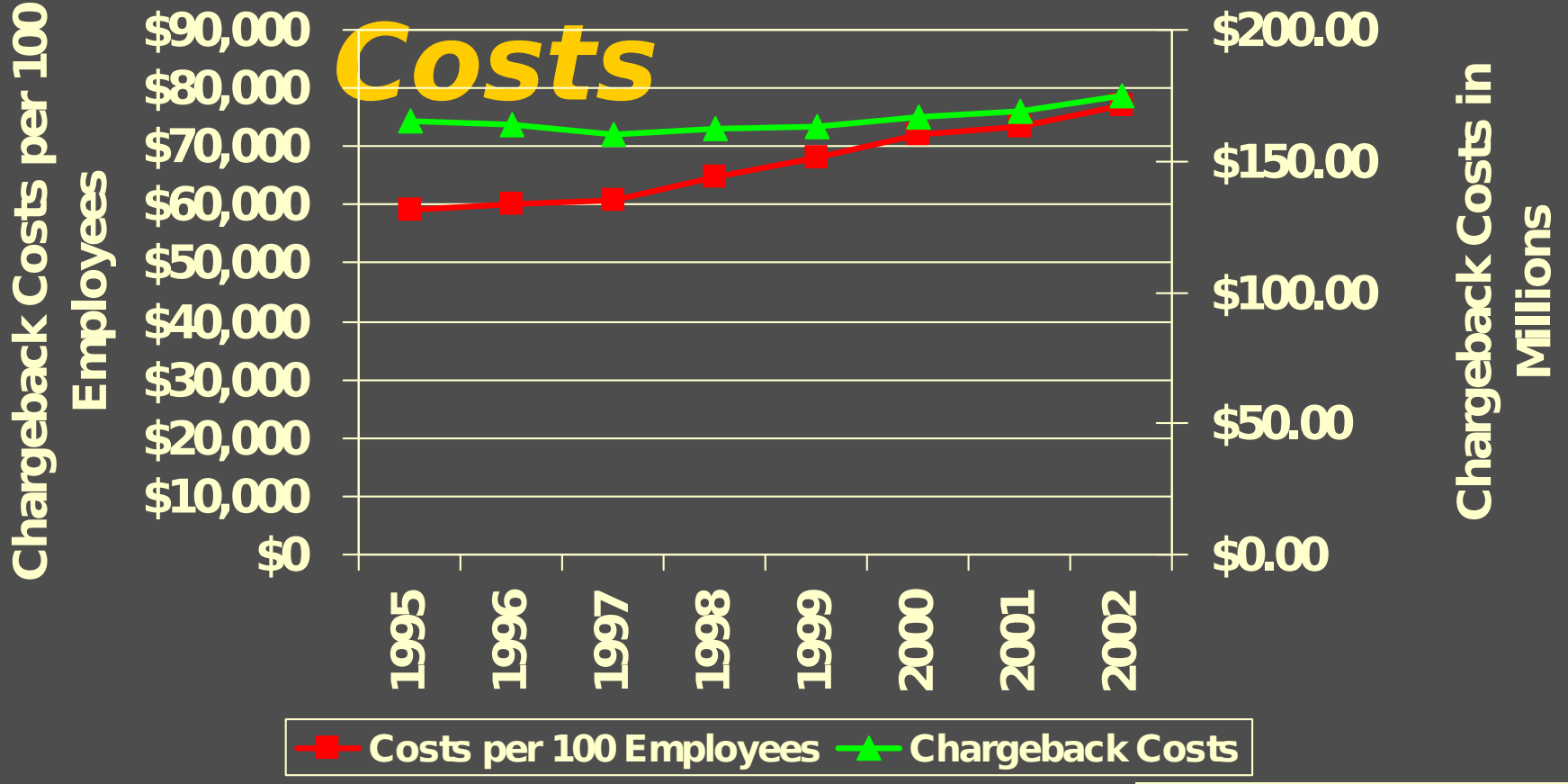


- Total Claim Rate (Army 2002: 9.8%)
- New Claim Rate (Army 2002: 4.3%)
- New Lost Time Claim Rate (Army 2002: 1.7%)
- Old Claim Rate (Army 2002: 2.7%)
- Adjusted Total Cost Rate (1996 $'s) (Army 2002: $67K)

Fort McPherson Rates and Costs



DA OWCP Chargeback Costs



Data from Department of Labor

Data Not Adjusted For Inflation

Outliers: What Have We Done With the Data?

- Reports to PM chiefs with trends and breakdown by types and costs of injuries
- Assistance visits
  - Collaborated with MACOM reps
- Case manager demonstration pilot
  - MEDCOM sites with lost day problems
  - Expected to impact garrison and MEDCOM cases

Plans

- Expand data analysis and reports
- Focus interventions based on injury types and other problem areas
- Offer training in medical case management
- Offer training in use of data sources and data analysis

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